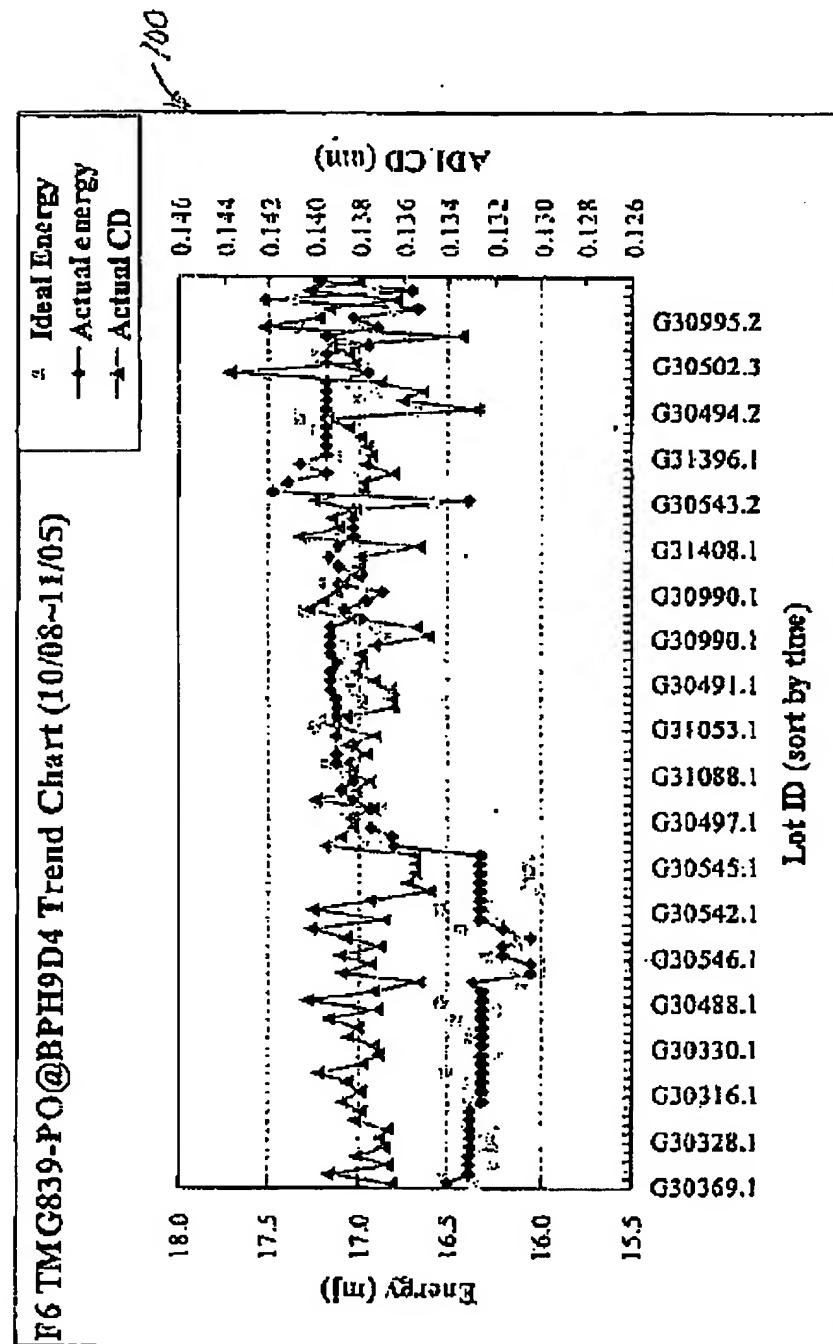


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Inventors: Yung-Cheng Chen et al.  
"Control Of Exposure energy On A Substrate"  
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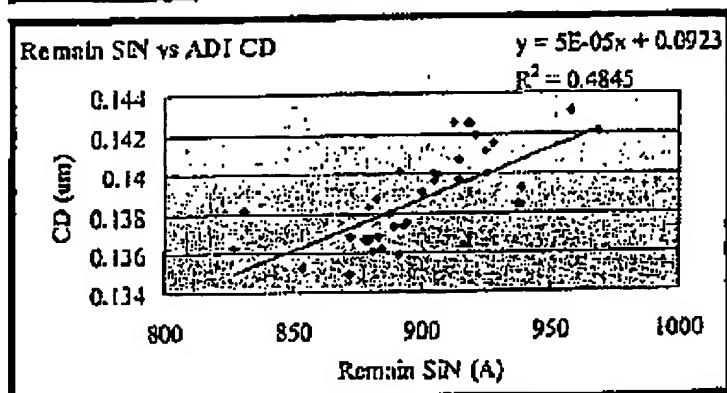
Docket No. N1085-00251

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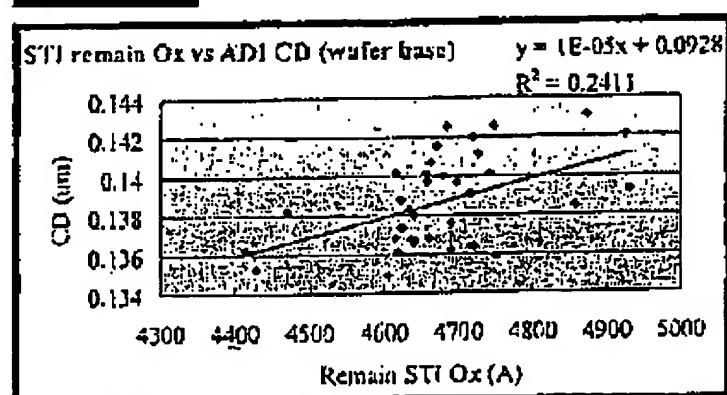
Sum/100A



200A

FIG. 2A

1nm/100A



200A

FIG. 2B

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$$CD = 5 \times 10^{-3} (SiN) + 0.0939$$
$$(CD - CD_{\text{target}}) = 5 \times 10^{-3} (SiN - SiN_{\text{target}})$$
$$(CD - 0.138) = 5 \times 10^{-3} (SiN - 882)$$
$$\Delta E_{\text{exposure}} = 1.25 \times 10^{-3} (SiN - 882)$$

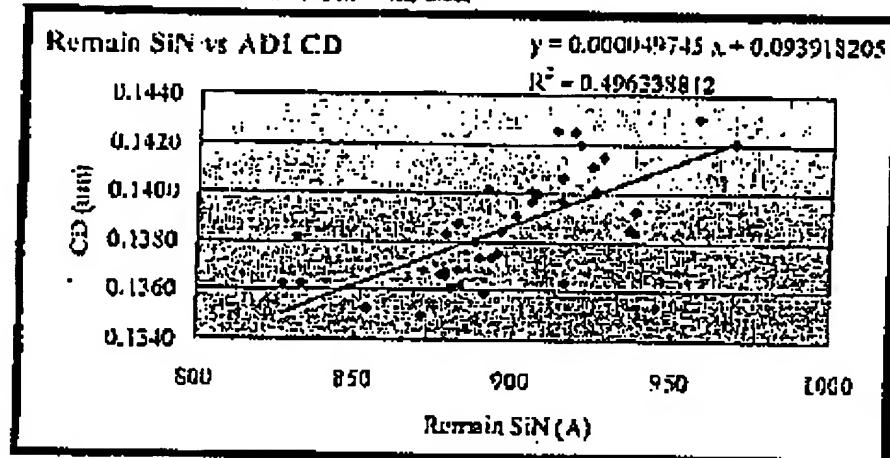


FIG. 3

Segment 1  $\Delta CD = -0.1029 \times (SIN - 805) / 10^4$ ,  $SIN < 870$   
 Segment 2  $\Delta CD = 1.0545 \times (SIN - 891) / 10^4$ ,  $870 \leq SIN < 920$   
 Segment 3  $\Delta CD = -1.8435 \times (SIN - 942) / 10^4$ ,  $920 \leq SIN < 940$   
 Segment 4  $\Delta CD = 1.3408 \times (SIN - 931) / 10^4$ ,  $SIN \geq 940$

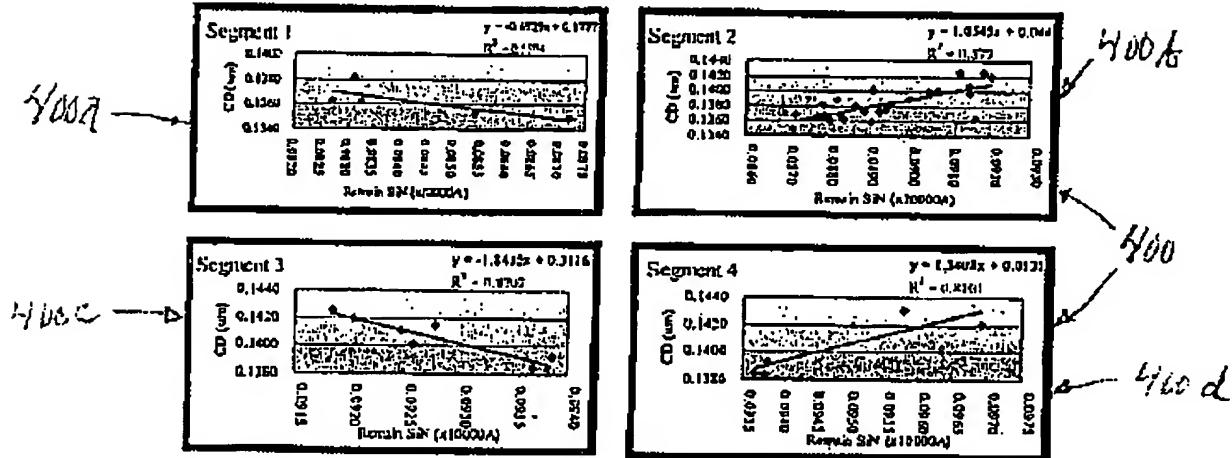


FIG. 4

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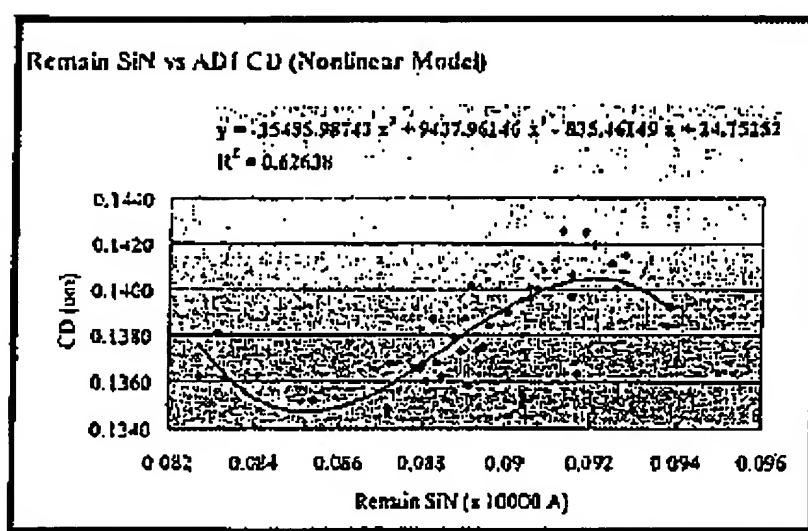
Docket No. N1085-00251

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$$CD = -35485.98743 \times SiN^3 + 9437.96146 \times SiN^2 - 835.46149 \times SiN + 24.75252$$



500

FIG. 5

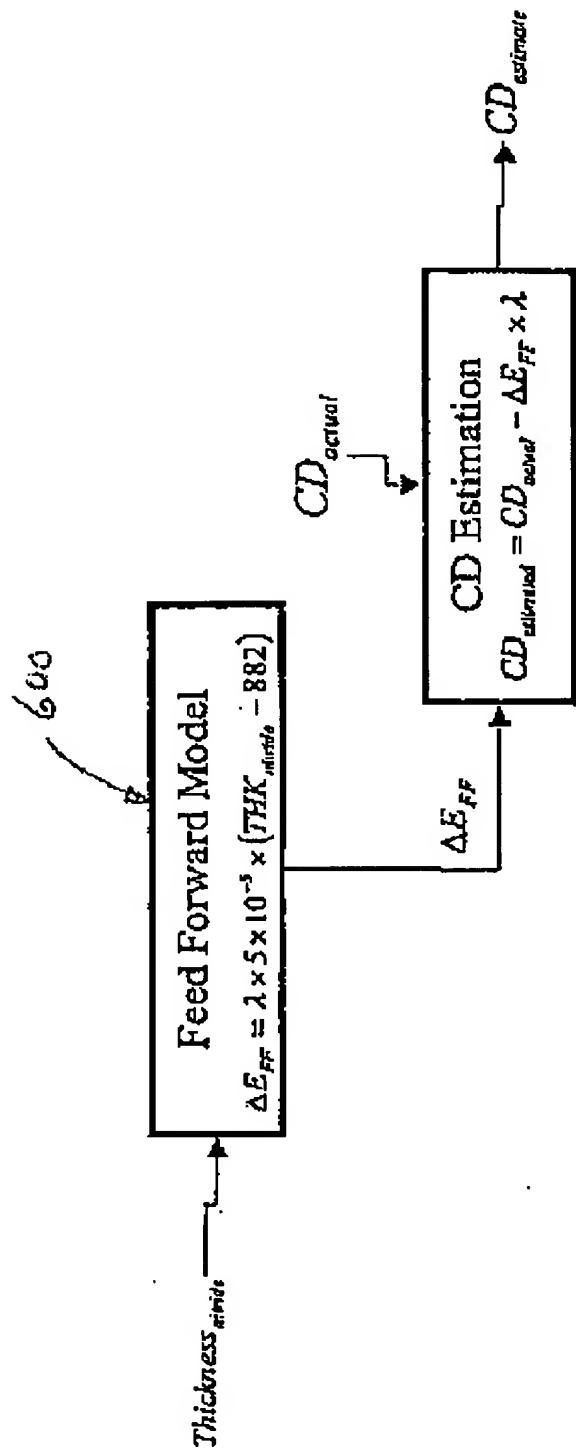


FIG. 6

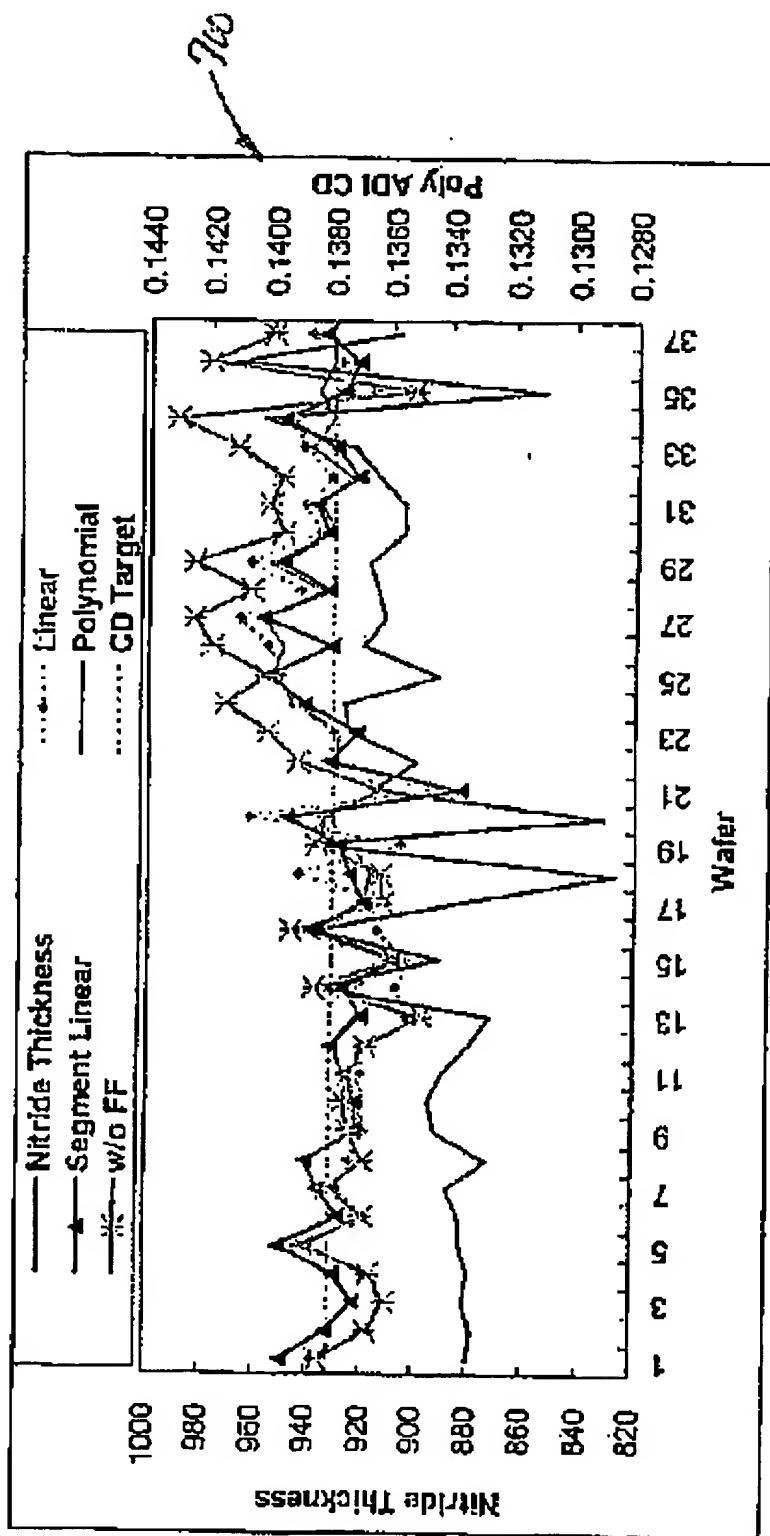


FIG. 7

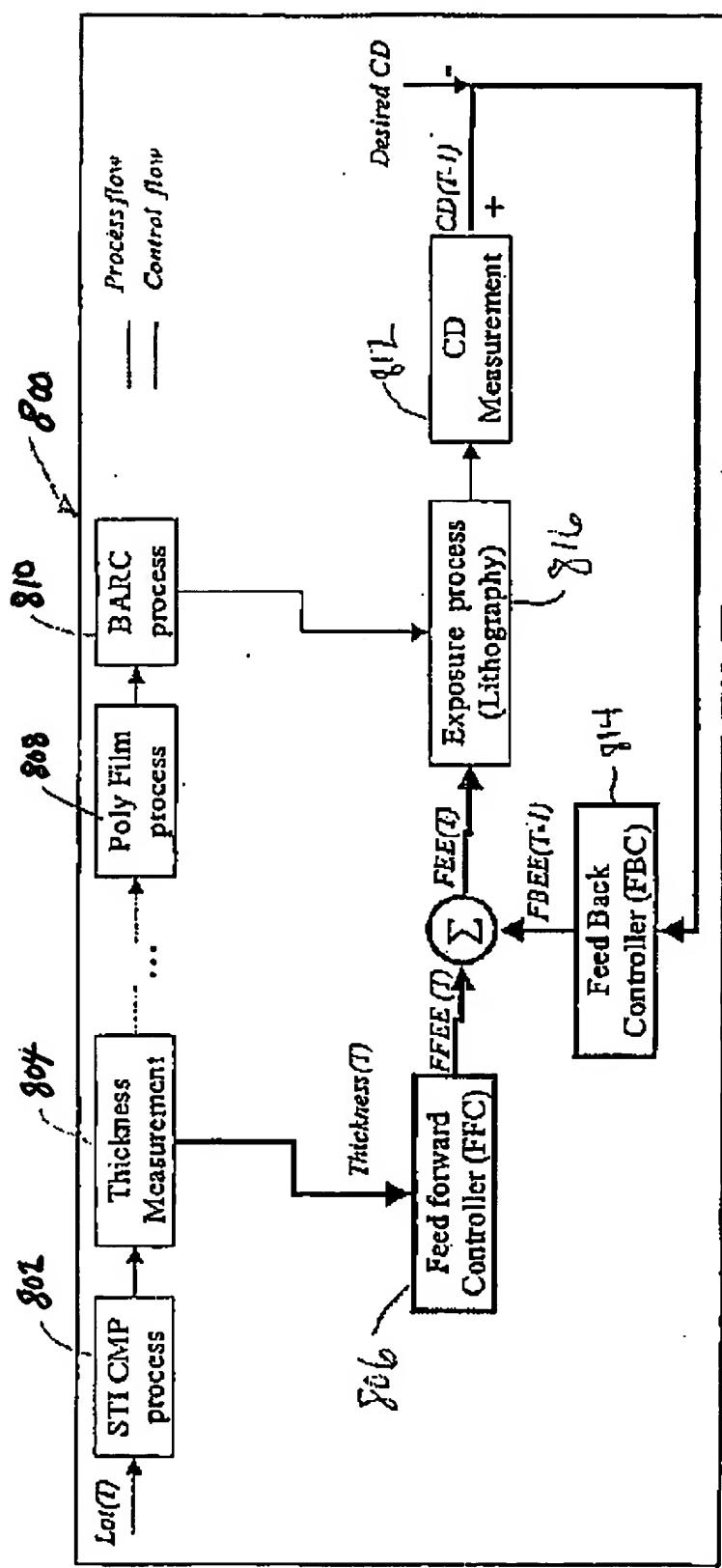


FIG. 8